



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/530,369 | 09/05/2000 | Hiroshi Miyagi | A-356 | 6679 |

802 7590 12/19/2003

DELLETT AND WALTERS
310 S.W. FOURTH AVENUE
SUITE 1101
PORTLAND, OR 97204

| |
|----------|
| EXAMINER |
|----------|

D AGOSTA, STEPHEN M

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2683

9

DATE MAILED: 12/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

TS

Office Action Summary

Application No.

09/530,369

Applicant(s)

MIYAGI, HIROSHI

Examiner

Stephen M. D'Agosta

Art Unit

2683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-7 and 9-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-7 and 9-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 11-20-03 have been fully considered but they are not persuasive:

1. The applicant has provided sufficient information to overcome the IDS objection for patent JP04-107941. It now is acknowledged as being "considered".
2. The examiner acknowledges addition of claims 11-20.
3. The applicant has cancelled claims 3, 8 and added them to independent claims 1 and 6. This, in the examiner's opinion, does not place the application in condition for allowance (see rejection below).
4. The drawing changes are accepted by the examiner.
5. The applicant argues that the prior art cited does not teach the claimed invention in "general terms". It appears that the applicant argues Cuffaro not being related to the applicant's invention, yet Cuffaro solves problem(s) associated with the measurement of RF signals AND a wholly contained device. Kanai deals with RF/cellular signals and Level/BER detectors. Lindenmeier teaches an RF test device.
5. The rejection below addresses the amended claims and the new claims as well.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 4-7, 9-14 and 16-19 rejected under 35 U.S.C. 103(a) as being unpatentable over Kim US Patent 5,978,659 in view of cuffaro et al. US Patent 5,983,185, Kanai US Patent 5,386,589 and Lindenmeier et al. US Patent 6,011,962 (hereafter Kim, Cuffaro, Kanai and Lindenmeier).

As per **claim 1**, Kim teaches a measurement system (eg. radio characteristic evaluating apparatus, title) comprising:

A signal generator that generates and outputs a predetermined signal measurement (figure 1, #16 teaches two signal generators. The examiner also points out that many different types of test signal generators are available today, eg. Bit Error Rate Testers (BERTs) transmit a psuedo-random signal that can be measured on the receive end.

A communication device including a processor device performs predetermined demodulation processing for said signal for measurement outputted from said signal generator and outputs the demodulated signal by performing predetermined receiving operation (C2, L28-57 teaches radio terminal or base station is/are test which inherently contain a receiver and control processor and hence, reads on the claim. Also see figure 2, #2 or #4)

A measuring device that sends a result of measurement by measuring the characteristics of said demodulated signal outputted from said communication device to said processing device (figure 1, #8 and #14 teaches a spectrum analyzer and receiving BER Meter)

Wherein said processing device controls a series of measurement procedures and reports said result of measurement sent from said measuring device (figure 1, spectrum analyzer can output data to PC/Printer #10/#12 via GPIB bus shown on right side of figure)

But is silent on the "measurement system" being a wholly contained "device" wherein said processing device performs control operation corresponding to at least a part of said receiving operation during normal operation of communication device.

Cuffaro teaches a device that can measure radio quality parameters (title) that is a wholly contained device (figure 1, #11 shows radio quality information being measured #17) and figures 2 and 3 show display outputs and the table shown in Column 3 shows various radio quality parameters collected and analyzed "may include" SSU, SSD, BERU, BERD, FREU, FERD, BQ, PL, etc.. Further to this point is **Kanai**, who teaches a mobile phone with "Level and BER Detectors" onboard (figure 3,

#51/#53) AND **Lindenmeier** who teaches a test device (figure 1, #10) that compares the received demodulated signal to a predetermined nominal value. Both read on the claimed limitation of a communication device with test system onboard.

Kanai teaches a mobile phone with a controller onboard (figure 3, #55) which connects to the receiver (#33) and hence reads on the claimed limitation.

With further regard to claim 6, Kim is silent on the “modulating process”.

Kanai teaches both mobile and MTSO have the controller and Level/BER detectors (figure 3, #44, #47, #49 on MTSO side vs. #51, #53, #55 on the mobile side), hence one skilled in the art would be able to provide a processing device for modulation and/or demodulation of said signal for measurement outputted from said signal generator (eg. reversing the direction of the data flow from receive/demodulate to transmit/modulate).

It would have been obvious to one skilled in the art at the time of the invention to modify Kim, such that the measurement system is a wholly contained communications device and a modulated test signal can be measured, to provide for a compact test system (eg. can fit in a mobile phone) that can test both transmitted/received signals.

As per **claims 2 and 7**, Kim teaches claim 1 and a display (figure 1, #10 is a PC w/monitor) **but is silent on** whereby said processing device reports said result of measurement by providing a predetermined display on said display unit.

Cuffaro teaches predetermined displays which would be used to display the data that is measured (figures 2 and 3 teach user displays for operation and/or display of data, C4, L58-65 and C5, L51-65).

It would have been obvious to one skilled in the art at the time of the invention to modify Kim, such that the processing device reports the results on a predetermined display, to provide the resultant data on a display in a format that is user friendly.

As per **claims 4 and 9**, Kim teaches claim 1 wherein said system includes reception processing section that receives a carrier wave having a predetermined receiving frequency and demodulates and takes out a signal included in the carrier wave (figure 1, #2 or #4 teach a cellular terminal or base station which have capability

of reception/demodulation. Also, the spectrum analyzer and receiving BER Meter (#8, #14) have capability to receive/demodulate as well)

But is silent on a communications device AND said processing device performs various kinds of setting processing required when said predetermined receiving operation is performed by said reception processing section.

Kanai teaches a mobile phone with a receiver/demodulator onboard (figure 3, #33 and hence reads on the claimed limitation.

Cuffaro teaches a device that can measure radio quality parameters (title) that is a wholly contained device (figure 1, #11 shows radio quality information being measured #17) and figures 2 and 3 show display outputs and the table shown in Column 3 shows various radio quality parameters collected and analyzed "may include" SSU, SSD, BERU, BERD, FREU, FERD, BQ, PL, etc..

It would have been obvious to one skilled in the art at the time of the invention to modify Kim, such that the system is contained on one device and the processing device performs various kinds of setting processing during receive operations, to provide for a compact device and for feedback to the receiver based upon measured data.

As per **claims 5 and 10**, Kim teaches claim 1 **but is silent on** wherein said processing device is configured by a CPU that controls said measurement procedures by executing a predetermined program for measurement.

Kim does teach a computer connected to the test system which can be interpreted as providing the software measurement program(s).

Cuffaro teaches a device which executes the procedures in figure 4, which is interpreted by the examiner as requiring a CPU to execute the steps taught.

Kanai teaches a controller (figure 3, #55) which can be interpreted as a CPU.

It would have been obvious to one skilled in the art at the time of the invention to modify Kim, such that the processing device is a CPU that controls measurement procedures and executes a program, to provide computer control of the measurement and receive operations and hence requires little/no user intervention.

As per **claims 11 and 16**, Kim teaches claim 1/6 wherein said communication device includes a variable adjustment element for adjusting characteristics thereof and

wherein said processing device changes said variable adjustment element based on results of said measurement to accomplish said adjustment (abstract teaches a control device for controlling call setting(s) based on measurements.

As per **claims 12-13 and 17-18**, Kim teaches claim 11/12/16/17 wherein the variable adjustment comprises a variable impedance/capacitor (Kim teaches a control device for controlling call settings based on measurements which reads on adjusting resistors/pots, capacitors, inductors, transistors, etc., all of which are utilized in RF communications and hence, reads on the claims).

As per **claims 14 and 19**, Kim teaches claim 13/18 wherein said device is a radio receiver (abstract and figures 1-2 teaches radio/RF communication).

Claims 15 and 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Kim/Cuffaro/Kanai/Lindenmeier and further in view of Jacobsen et al. US 6,073,034 (hereafter Jacobsen).

As per **claims 15 and 20**, Kim teaches claim 13/18 **but is silent on** wherein the device comprises a television receiver.

Jacobsen teaches a microdisplay that can be used as a hand-held communication system such as a pager, a wireless mobile telephone, or alternatively, as a head-mounted display or a card reader display system. The display can provide a visual display suitable for data, graphics or video and accommodate standard television or high definition television signals. The system can optionally include circuitry for cellular reception and transmission of facsimile communications, can be voice activated, can include a mouse operated function, provide Internet access, and can have a keyboard or touch pad for numeric or alphabetic entry. The system can have, such as in a card reader display system, a housing with a port or aperture to receive a card, and a card reader for reading information from the card and displaying the information on the microdisplay. The telephone or hand-held unit can be equipped with a camera or solid state imaging sensor so that images can be generated and transmitted to a remote location and/or viewed on the display. Also the telephone user can call to access a particular computer at a remote location, present the computer screen on the

Art Unit: 2683

microdisplay, access specific files in the computer memory and download data from the file into a memory within the telephone or a modular memory and display unit connected to the telephone (abstract, figures 8-13k and C2, L26-52).

It would have been obvious to one skilled in the art at the time of the invention to modify Kim, such that the device contains a TV receiver, to provide a multi-use device that supports TV and phone operations.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. D'Agosta whose telephone number is 703-306-5426. The examiner can normally be reached on M-F, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Trost can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

SMD
12-3-03


WILLIAM TROST
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600